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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,190	12/22/2004	Achim Grefenstein	12810-00006-US	6808

30678 7590 09/06/2007  
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EXAMINER
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KRUER, KEVIN R

ART UNIT	PAPER NUMBER
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1773

MAIL DATE	DELIVERY MODE
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09/06/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/519,190	GREFENSTEIN ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kevin R. Kruer	1773	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on June 26 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 12-31 is/are pending in the application.
- 4a) Of the above claim(s) 12,13,15-21,23,25,26 and 28-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14, 22, 24, and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Claims 12, 13, 15-21, 23, 25, 26, and 28-31 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on February 9, 2007. The examiner notes the improper status identifier was used for claims 12, 13, 15-21, 23, 25, 26, and 28-30. Said claims are currently "withdrawn" from consideration.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 14, 22, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of JP 56-161160A (Ashai Dow) in view of WO 2001/083574 (herein referred to as "Breulmann"). US 2003/0105225A1 has been utilized as an English translation of the Breulmann reference and all citations herein refer to the U.S. publication.

Ashai Dow teaches a laminate comprising a HIPS outer layer (A), a styrene copolymer intermediate layer(C) and an ABS layer (abstract). The HIPS layer is understood to read on the claimed "outer layer" of claim 14 and may comprise 100% alpha-methylstyrene (see col 5).

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Ashai Dow does not teach the ABS layer should comprise the claimed "substrate layer" composition. However, Breulmann teaches a composition that has better notch impact resistance, toughness, penetration energy, flowability, and surface gloss than ABS (008 and 002). The graft copolymer molding composition comprises:

a1: from 10 to 90% by weight of a particulate graft base A1, made from a particulate emulsion polymer with a glass transition temperature below 0°C made from

all: from 70 to 100% by weight of butadiene or of at least one C1.8-alkyl acrylate, or of mixtures of these, as component A11,

a12: from 0 to 20% by weight of at least one polyfunctional crosslinking monomer, as component A12,

a13: from 0 to 30% by weight of other copolymerizable monomers, as component A13, the total amount of these being 100% by weight,

a2: from 10 to 90% by weight of a graft A2 made from the following monomers, the amounts being based on A2,

a21: from 60 to 100% by weight of at least one vinylaromatic monomer, or of a (meth)acrylic ester or of mixtures of these, as component A21, and

a22: from 0 to 40% by weight of at least one ethylenically unsaturated monomer, as component A22,

has a median particle diameter of from 130 to 500 nm and has polymodal particle size distribution in which less than 40% by weight of the particles are present in any particle size range of width 50 nm (abstract). The composition further comprises component B which comprises 60-100% by weight of vinylaromatic monomers and 0-40% by weight

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of an ethylenically unsaturated monomer, preferably of acrylonitrile or methyl methacrylate (0068-0070). Thus, it would have been obvious to utilize the composition taught in Breulmann in place of the ABS layer taught in Asahi Dow in order to improve the impact resistance, mechanical properties, toughness, and flowability of layer (C).

With regards to claim 22, Ashai Dow does not teach the claimed thickness. However, it would have been obvious to the skilled artisan to vary the thickness of the composite sheet according to the desired end use of the product. With regards to claim 27, the properties claimed therein are understood to be inherent to the composition taught by Ashai Dow in view of Breulmann since said composition/laminate is compositionally identical to the claimed invention.

### ***Response to Arguments***

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin R. Kruer whose telephone number is 571-272-1510. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'K R Kruer'.

Kevin R. Kruer  
Patent Examiner-Art Unit 1773